Effective Health Care

Hospital Care of Late Preterm Infants
Nomination Summary Document

Results of Topic Selection Process & Next Steps

- The topic, *Hospital Care of Late Preterm Infants,* is important, but due to limited program resources the program is unable to develop a systematic review at this time. No further activity on this topic will be undertaken by the Effective Health Care (EHC) Program.

Topic Description

Nominator(s): Organization

Nomination Summary: While management of preterm infants born before 34 weeks has been the object of much research and has led to significant improvement in the outcomes of these infants, the interest in late preterm infants (LPIs) is more recent, and management guidelines for LPIs are not comprehensive. A systematic review has the potential to help improve outcomes and reduce morbidity and mortality in LPIs through informing practice, quality improvement, and patient safety initiatives, as well as in identifying research gaps. Such a product could also result in increased use of surveillance methods and specialized interventions for LPIs.

Staff-Generated PICO

Population(s): Late preterm infants (defined as those born between 34 weeks and 0 days of gestation and 36 weeks and 6 days of gestation) without obvious complications at birth

- **KQ 1:** late preterm infants with respiratory distress
- **KQ 2:** late preterm infants with thermal instability
- **KQ 3:** late preterm infants with hypoglycemia
- **KQ 4:** late preterm infants with hyperbilirubinemia/jaundice
- **KQ 5:** late preterm infants with sepsis
- **KQ 6:** late preterm infants with feeding challenges

Intervention(s): Increased hospital surveillance, assessment, and targeted interventions aimed at addressing specific needs of LPIs (such as skin-to-skin care)

Comparator(s): Usual care in a well-baby nursery

Outcome(s): Length of hospital stay, neonatal intensive care unit (NICU) transfers, hospital re-admission, hyperbilirubinemia, dehydration, sepsis, and respiratory distress; overall neonatal morbidity and mortality; sequelae of complications resulting from suboptimal care such as long-term learning, cognitive and behavioral functioning, and psychiatric disorders.

Timing: Intervention during the neonatal period (first 28 days of life)

Key Questions from Nominator: What is the effect of increased hospital surveillance, assessment and targeted interventions on length of hospital stay, NICU transfers, re-hospitalization, and morbidly/mortality of late preterm infants following discharge for the following LPI

subgroups?

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Considerations

- The topic meets EHC Program appropriateness criteria. (For more information, see http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/.)
- Over a tenth of infants in the US are born premature, among which nearly three fourths meet the definition of late preterm infant (LPI). LPIs often receive care similar to that of full-term infants, but have increased complications, morbidity, and mortality compared to full-term infants. LPIs are cared for in the neonatal intensive care unit (NICU) roughly 7-8 times as often as full-term infants. They are also more likely than full-term infants to be re-admitted to the hospital after initial discharge. While many LPIs need specialized care in the NICU, many do not routinely receive NICU surveillance because of their birth weight, initial extra-uterine adaptation, and local policies.
- One of the nominating organizations is already in the process of updating their guideline, which will cover this topic. Given this in-process guideline, and limited program resources, the program is unable to move forward with a review at this time.